State of Utah
Administrative Rule Analysis

NOTICE OF PROPOSED RULE

The agency identified below in box 1 provides notice of proposed rule change pursuant to *Utah Code* Sections 63-46a-4. Please address questions regarding information on this notice to the agency. The full text of all rule filings is published in the *Utah State Bulletin* unless excluded because of space constraints. The full text of all rule filings my also be inspected at the Division of Administrative Rules.

DAR file no:		Date filed:	
Utah Admin. Code ref. (R no.):	R156-56-704	Time filed:	
Changed to Admin. Code Ref. (R no.):			

1.	Agency:	Commerce/Division of Occupational and Professional Licensing		
	Room no.:			
	Building:	Heber M. Wells Building		
	Street address 1:	160 East 300 South		
	Street address 2:			
	City, state, zip:	Salt Lake City UT 84111-2316		
	Mailing address 1:	PO Box 146741		
	Mailing address 2:			
	City, state, zip:	Salt Lake City UT 84114-6741		
	Contact person(s):			
	Name:	**Phone:**	**Fax:**	**E-mail:**
	Dan S. Jones	801-530-6720	801-530-6511	dsjones@utah.gov

(Interested persons may inspect this filing at the above address or at DAR between 8:00 a.m. and 5:00 p.m. on business days.)

2.	**Title of rule or section** (catchline)**:**
	Statewide Amendments to the IBC
3.	**Type of notice:**
	New ___; Amendment XX; Repeal ___; Repeal and Reenact ___
4.	**Purpose of the rule or reason for the change:**
	The Division is filing an amendment to the rule to implement the semiannual proposed changes to building codes that have been approved bv the Uniform Building Code Commission after review by the appropriate subcommittees. This amendment is being proposed separately because there may be further adjustments needed depending on comments at the public hearing.
5.	**This change is a response to comments from the Administrative Rules Review Committee.**
	Yes ___; No XX
6.	**Summary of the rule change:**
	Added an amendment to Section 1621.1 and adds a new Section 1621.1.4 - The proposed amendments modify a fire sprinkler requirement that is overly restrictive and costly to be more appropriate. Renumbered remaining paragraphs.
7.	**Aggregate anticipated cost or savings to:**
	A) State budget:
	The Division has determined that there should be no direct effect on the state budget as a result of this proposed amendment.

	B) Local government:		
	The Division has determined that there should be no direct effect on a local government budget as a result of this proposed amendment.		
	C) Other persons:		
	Overall the proposed amendment does not appear to substantially change costs of construction. The proposed amendment will allow minor savings to building owners, residential homeowners and fire sprinkler contractors. It is impossible to estimate total aggregate impact because it would depend on the specific project, but cost differences are expected to be minor.		
8.	**Compliance costs for affected persons** ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization or any character other than an agency)**:**		
	Overall the proposed amendment does not appear to substantially change costs of construction. The proposed amendment will allow minor savings to building owners, residential homeowners and fire sprinkler contractors. It is impossible to estimate total possible savings for each person because it would depend on the specific project, but cost differences are expected to be minor.		
9.	**Comments by the department head on the fiscal impact the rule may have on businesses:**		
	The proposed amendment adopts the requirement for a one inch space around fire sprinklers, which is less restrictive than the requirement in the International Building Code. It is not year clear what effect this modification will have, but it is anticipated that there will be a slight cost savings to home and building owners and contractors. The proposed rule change will allow for installation of less expensive sprinkler heads without compromising safety since the one inch heads will be used only with breakaway ceilings; two inch heads will continue to be required in rigid ceilings constructed, for example, with metal materials. Klarice A. Bachman, Executive Director		
10.	**This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.** **State code or constitution citations** (required)**:**		
	Subsections 58-1-106(1)(a), 58-1-202(1)(a), 58-56-4(2) and 58-56-6(2)(a) and Section 58-56-1		
11.	**This rule adds, updates, or otherwise changes the following titles of materials incorporated by references** (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank)**:**		
12.	**The public may submit written or oral comments to the agency identified in box 1.** (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the *Utah State Bulletin*. See Section 63-46a-5 and Rule R15-1 for more information.)		
	A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy)**:**		12/01/2004
	B) A public hearing (optional) will be held:		
	on (mm/dd/yyyy)**:**	**at** (time)**:**	**At** (place)**:**
	11/15/2004	9:00 am	State Office Building, Room 4112, Salt Lake City, Utah
13.	**This rule change may become effective on** (mm/dd/yyyy)**:**		12/02/2004
	NOTE: The date above is the date on which this rule MAY become effective. It is *NOT* the effective date. After the date designated in Box 12(A) above, the agency *must* submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.		
14.	**Indexing information -- keywords** (maximum of four, in lower case, except for acronyms (e.g., "NASA") or proper nouns (e.g., "Medicaid")**:**		
	contractors	building codes	

	building inspection	licensing	
15.	**Attach an RTF document containing the text of this rule change** (filename)**:**		R156-56.pr1.rtf

To the agency: Information requested on this form is required by Sections 63-46a-4, 5, 6, and 10. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the *Utah State Bulletin*, and delaying the first possible effective date.

AGENCY AUTHORIZATION

Agency head or designee, and title:	J. Craig Jackson, Director	**Date** (mm/dd/yyyy)**:**	10/07/2004

R156. Commerce, Occupational and Professional Licensing.
R156-56. Utah Uniform Building Standard Act Rules.
R156-56-704. Statewide Amendments to the IBC.

The following are adopted as amendments to the IBC to be applicable statewide:

(1) All references to the International Electrical Code are deleted and replaced with the National Electrical Code adopted under Subsection R156-56-701(1)(b).

(2) All references to the International Existing Building Code are deleted and replaced with the codes approved under Subsection R156-56-701(2).

(3) Section 101.4.1 is deleted and replaced with the following:

101.4.1 Electrical. The provisions of the National Electrical Code (NEC) shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

(4) In Section 109, a new section is added as follows:

109.3.5 Weather-resistive barrier and flashing. An inspection shall be made of the weather-resistive barrier as required by Section 1403.2 and flashing as required by Section 1405.3 to prevent water from entering the weather-resistant exterior wall envelope.

The remaining sections will be renumbered as follows:

109.3.6 Lath or gypsum board inspection
109.3.7 Fire-resistant penetrations
109.3.8 Energy efficiency inspections
109.3.9 Other inspections
109.3.10 Special inspections
109.3.11 Final inspection.

(5) Section 114.1 is deleted and replaced with the following:

114.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or other pertinent laws

or ordinances or dangerous or unsafe, the building official is authorized to stop work.

(6) In Section 202, the following definition is added:

ASSISTED LIVING FACILITY. See Section 308.1.1.

(7) Section 305.2 is deleted and replaced with the following:

305.2 Day care. The building or structure, or portion thereof, for educational, supervision, child day care centers, or personal care services of more than four children shall be classified as a Group E occupancy. See Section 419 for special requirements for Group E child day care centers.

Exception: Areas used for child day care purposes with a Residential Certificate, Family License or Family Group License may be located in a Group R-2 or R-3 occupancy as provided in Section 310.1 or shall comply with the International Residential Code in accordance with Section 101.2.

Child day care centers providing care for more than 100 children 2 1/2 years or less of age shall be classified as Group I-4.

(8) In Section 308 the following definitions are added:

308.1.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

TYPE 1 ASSISTED LIVING FACILITY. A residential facility that provides a protected living arrangement for ambulatory, non-restrained persons who are capable of achieving mobility sufficient to exit the facility without the assistance of another person.

TYPE 2 ASSISTED LIVING FACILITY. A residential facility that provides an array of coordinated supportive personal and health care services to residents who meet the definition of semi-independent.

SEMI-INDEPENDENT. A person who is:

A. Physically disabled but able to direct his or her own care; or

B. Cognitively impaired or physically disabled but able to evacuate from the facility with the physical assistance of one person.

(9) Section 308.2 is deleted and replaced with the following:

308.2 Group I-1. This occupancy shall include buildings, structures, or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to,

the following: residential board and care facilities, type 1 assisted living facilities, half-way houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug centers and convalescent facilities. A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as a Group R-4.

(10) Section 308.3 is deleted and replaced with the following:

308.3 Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care on a 24-hour basis of more than three persons who are not capable of self-preservation. This group shall include, but not be limited to the following: hospitals, nursing homes (both intermediate care facilities and skilled nursing facilities), mental hospitals, detoxification facilities, ambulatory surgical centers with two or more operating rooms where care is less than 24 hours, outpatient medical care facilities for ambulatory patients (accommodating more than five such patients in each tenant space) which may render the patient incapable of unassisted self-preservation, and type 2 assisted living facilities. Type 2 assisted living facilities with five or fewer persons shall be classified as a Group R-4. Type 2 assisted living facilities as defined in 308.1.1 with at least six and not more than sixteen residents shall be classified as a Group I-1 facility.

(11) Section 308.3.1 is deleted and replaced with the following:

308.3.1 Child care facility. A child care facility that provides care on a 24 hour basis to more than four children 2 1/2 years of age or less shall be classified as Group I-2.

(12) Section 308.5 is deleted and replaced with the following:

308.5 Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. A facility such as the above with four or fewer persons shall be classified as an R-3 or shall comply with the International Residential Code in accordance with Section 101.2. Places of worship during religious functions and Group E child day care centers are not included.

(13) Section 308.5.2 is deleted and replaced with the following:

308.5.2 Child care facility. A facility that provides supervision and personal care on less than a 24 hour basis for more than 100 children 2 1/2 years of age or less shall be classified as Group I-4.

(14) Section 310.1 is deleted and replaced with the following:

310.1 Residential Group "R". Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classed as an Institutional Group I. Residential occupancies shall include the following:

R-1: Residential occupancies where the occupants are primarily transient in nature (less than 30 days) including: Boarding Houses (transient), Hotels (transient), and Motels (transient).

Exception: Boarding houses accommodating 10 persons or less shall be classified as a Residential Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2.

R-2: Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including: Apartment Houses, Boarding houses (not transient), Convents, Dormitories, Fraternities and Sororities, Monasteries, Vacation timeshare properties, Hotels (non transient), and Motels (non transient).

Exception: Boarding houses accommodating 10 persons or less shall be classified as a Residential Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2.

R-3: Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units, as applicable in Section 101.2, or adult and child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours. Adult and child care facilities that are within a single family home are permitted to comply with the International Residential Code in accordance with Section 101.2. Areas used for day care purposes may be located in a residential dwelling unit under all of the following conditions:

1. Compliance with the Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board.

2. Use is approved by the State Department of Health, as enacted under the authority of the Utah Child Care Licensing Act, UCA, Sections 26-39-101 through 26-39-110, and in any of the following categories:

a. Utah Administrative Code, R430-50, Residential Certificate Child Care Standards.

b. Utah Administrative Code, R430-90, Licensed Family Child Care.

3. Compliance with all zoning regulations of the local regulator.

R-4: Residential occupancies shall include buildings arranged for occupancy as Residential Care/Assisted Living Facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise provided for in this code or shall comply with the International Residential Code in accordance with Section 101.2.

(15) A new Section 403.9.1 is added as follows:

403.9.1 Elevator lobby. Elevators on all floors shall open into elevator lobbies that are separated from the remainder of the building, including corridors and other means of egress by smoke partitions complying with Section 710. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within the code. Elevator lobbies shall be separated from a fire resistance rated corridor with fire partitions complying with Section 708 and shall have walls of not less than one-hour fire resistance rating and openings shall conform to Section 715.

Exceptions:

1. Separations are not required from a street floor elevator lobby.

2. In atria complying with the provisions of Section 404 elevator lobbies are not required.

(16) A new section 419 is added as follows:

Section 419 Group E Child Day Care Centers. Group E child day care centers shall comply with Section 419.

419.1 Location at grade. Group E child day care centers shall be located at the level of exit discharge.

Exception: Child day care spaces for children over the age of 24 months may be located on the second floor of buildings equipped with automatic fire protection throughout and an automatic fire alarm system.

419.2 Egress. All Group E child day care spaces with an occupant load of 10 or more shall have a second means of egress. If the second means of egress is not an exit door leading directly to the exterior, the room shall have an emergency escape and rescue window complying with Section 1025.

(17) In Section 707.14.1 Exception 4 is deleted and replaced with the following:

4. See Section 403.9.1 for high rise buildings.

(18) In Section (F)902, the definition for record drawings is deleted and replaced with the following:

(F)RECORD DRAWINGS. Drawings ("as builts") that document all aspects of a fire protection system as installed.

(19) Section (F)903.2.7 is deleted and replaced with the following:

(F)903.2.7 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) constructed in accordance with the International Residential Code For One- and Two-Family Dwellings.

2. Group R-4 fire areas not more than 4,500 gross square feet and not containing more than 16 residents, provided the building is equipped throughout with an approved fire alarm system that is interconnected and receives it primary power from the building wiring and a commercial power system.

(20) Section (F)903.3.7 is deleted and replaced with the following:

(F)903.3.7 Fire department connections. The location of fire department connections shall be approved by the code official.

(21) Section 905.5.3 is deleted and replaced with the following:

905.5.3 Class II system 1-inch hose. A minimum 1-inch (25.4 mm) hose shall be permitted to be used for hose stations in light-hazard occupancies where investigated and listed for this service and where approved by the code official.

(22) Section (F)907.2.10 is deleted and replaced with the following:

(F)907.2.10 Single- and multiple-station alarms. Listed single- and multiple-station smoke alarms shall be installed in accordance with the provision of this code and the household fire-warning equipment provision of NFPA 72. Listed single- and multiple-station carbon monoxide detectors shall comply with U.L. 2034 and shall be installed in accordance with the provisions of this code and NFPA 720.

(F)907.2.10.1 Smoke alarms. Single- or multiple-station smoke alarms shall be installed in the locations described in Sections (F)907.2.10.1.1 through (F)907.2.10.1.4.

(F)907.2.10.1.1 Group R-1. Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.

2. In every room in the path of the means of egress from the sleeping area to the door leading from the sleeping unit.

3. In each story within the sleeping unit, including basements. For sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

(F)907.2.10.1.2 Groups R-2, R-3, R-4 and I-1. Single- or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1, regardless of occupant load at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.

2. In each room used for sleeping purposes.

3. In each story within a dwelling unit, including basements and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

(F)907.2.10.1.3 Group I-1. Single- or multiple-station smoke alarms shall be installed and maintained in sleeping areas in occupancies in Group I-1. Single- or multiple-station smoke alarms shall not be required where the building is equipped throughout with an automatic fire detection system in accordance with Section (F)907.2.6.

(F)907.2.10.2 Carbon monoxide alarms. Carbon monoxide alarms shall be installed on each habitable level of a dwelling unit or sleeping unit in Groups R-2, R-3, R-4 and I-1 equipped with fuel burning appliances.

(F)907.2.10.3. Power source. In new construction, required alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Alarms are not required to be equipped with battery backup in Group R-1 where they are connected to an emergency electrical system.

(F)907.2.10.4 Interconnection. Where more than one alarm is required to be installed with an individual dwelling unit in Group R-2, R-3, or R-4, or within an individual sleeping unit in Group R-1, the alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms

in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. Approved combination smoke and carbon-monoxide detectors shall be permitted.

(F)907.2.10.5 Acceptance testing. When the installation of the alarm devices is complete, each detector and interconnecting wiring for multiple-station alarm devices shall be tested in accordance with the household fire warning equipment provisions of NFPA 72 and NFPA 720, as applicable.

(23) Section 1009.3, Exception #5 is deleted and replaced with the following:

5. In occupancies in Group R-3, as applicable in Section 101.2, within dwelling units in occupancies in Group R-2, as applicable in Section 101.2, and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, the maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). The minimum winder tread depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 10 inches (254 mm).

(24) Section 1009.11 Exception #4 is deleted and replaced with the following:

4. In occupancies in Group R-3, as applicable in Section 101.2 and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, handrails shall be provided on at least one side of stairways consisting of four or more risers.

(25) Section 1009.11.3 is amended to include the following exception at the end of the section:

Exception. Non-circular handrails serving an individual unit in a Group R-1, Group R-2 or Group R-3 occupancy shall be permitted to have a maximum cross sectional dimension of 3.25 inches (83 mm) measured 2 inches (51 mm) down from the top of the crown. Such handrail is required to have an indention on both sides between 0.625 inch (16 mm) and 1.5 inches (38 mm) down from the top or crown of the cross section. The indentation shall be a minimum of 0.25 inch (6 mm) deep on each side and shall be at least 0.5 (13 mm) high. Edges within the handgrip shall have a minimum radius of 0.0625 inch (2 mm). The handrail surface shall be smooth with no cusps so as to avoid catching clothing or skin.

(26) In Section 1012.2 Exception 3 is added as follows:

3. For occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2, as applicable in

Section 101.2, guards shall form a protective barrier not less than 36 inches (914 mm) in height.

(27) New sections 1109.7.1 and 1109.7.2 are added as follows:

1109.7.1 All platform (wheelchair) lifts shall be capable of independent operation without a key.

1109.7.2 Standby power shall be provided for platform lifts permitted to serve as part of the accessible means of egress.

(28) Section 1208.4 subparagraph 1 is deleted and replaced with the following:

1. The unit shall have a living room of not less than 165 square feet (15.3 m^2) of floor area. An additional 100 square feet (9.3 m^2) of floor area shall be provided for each occupant of such unit in excess of two.

(29) Section 1405.3 is deleted and replaced with the following:

1405.3 Flashing. Flashing shall be installed in such a manner so as to prevent moisture from entering the wall or to redirect it to the exterior. Flashings shall be installed at the perimeters of exterior door and window assemblies, penetrations and terminations of exterior wall assemblies, exterior wall intersections with roofs, chimneys, porches, decks, balconies and similar projections and at built-in gutters and similar locations where moisture could enter the wall. Flashing with projected flanges shall be installed on both sides and the ends of copings, under sills and continuously above projected trim. A flashing shall be installed at the intersection of the foundation to stucco, masonry, siding or brick veneer. The flashing shall be on an approved corrosion-resistant flashing with a 1/2" drip leg extending past exterior side of the foundation.

(30) Section 1604.5, footnote "c" is added to Table 1604.5 Classification of Buildings and Other Structures for Importance Factors:

c. For determining "W" per sections 1616.4.1, 1617, 1617.5.1, or 1618.1, the Snow Factor I_s, may be taken as 1.0.

(31) In Section 1605.2.1, the formula shown as "f_2 = 0.2 for other roof configurations" is deleted and replaced with the following:

f_2 = 0.20 + .025(A-5) for other configurations where roof snow load exceeds 30 psf

f_2 = 0 for roof snow loads of 30 psf (1.44kN/m^2) or less.

Where A = Elevation above sea level at the location of the structure (ft/1000).

(32) In Section 1605.3.1 and section 1605.3.2, Exception number 2 in each section is deleted and replaced with the following:

Flat roof snow loads of 30 pounds per square foot (1.44 kNm^2) or less need not be combined with seismic loads. Where flat roofs exceed 30 pounds per square foot (1.44 kNm^2), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads.

$W_s = (0.20 + 0.025(A-5))P_f$

Where

W_s = Weight of snow to be included, psf

A = Elevation above sea level at the location of the structure (ft/1000)

P_f = Design roof snow load, psf

(33) In Table 1607.1 number 6 is deleted and replaced with the following:

TABLE 1607.1 NUMBER 6

Occupancy or Use	Uniform (psf)	Concentrated (lbs)
6. Decks, except residential	Same as occupancy served[h]	
6.1 Residential decks	60 psf	

(34) In Table 1607.1 number 27 is deleted and replaced with the following:

TABLE 1607.1 NUMBER 27

Occupancy or Use	Uniform (psf)	Concentrated (lbs)
27. Residential		
Group R-3 as applicable in Section 101.2		-
Uninhabitable attics without storage	10[i]	
Uninhabitable attics with storage	20	
Habitable attics and sleeping areas	30	
All other areas except balconies and decks	40	
Hotels and multifamily dwellings		
Private rooms	40	
Public rooms & corridors serving them	100	

(35) In Notes to Table 1607.1, Note i is added as follows:

i. This live load need not be considered as acting simultaneously with other live loads imposed upon the ceiling framing or its supporting structure.

(36) Section 1608.1 is deleted and replaced with the following:

Except as modified in section 1608.1.1, design snow loads shall be determined in accordance with Section 7 of ASCE 7, but

the design roof load shall not be less than that determined by Section 1607.

(37) Section 7.4.5 of Section 7 of ASCE 7 referred to in Section 1608.1 of the IBC is deleted and replaced with the following:

Section 7.4.5 Ice Dams and Icicles Along Eaves. Where ground snow loads exceed 75 psf, eaves shall be capable of sustaining a uniformly distributed load of $2p_f$ on all overhanging portions. No other loads except dead loads shall be present on the roof when this uniformly distributed load is applied. All building exits under down-slope eaves shall be protected from sliding snow and ice.

(38) Section 1608.1.1 is added as follows:

1608.1.1 Utah Snow Loads. The ground snow load, P_g, to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2 + S^2(A-A_o)^2)^{0.5}$ for A greater than A_o, and $P_g = P_o$ for A less than or equal to A_o.

WHERE

P_g = Ground snow load at a given elevation (psf)

P_o = Base ground snow load (psf) from Table No. 1608.1.1(a)

S = Change in ground snow load with elevation (psf/100 ft.) From Table No. 1608.1.1(a)

A = Elevation above sea level at the site (ft./1000)

A_o = Base ground snow elevation from Table 1608.1.1(a) (ft./1000)

The building official may round the roof snow load to the nearest 5 psf. The ground snow load, P_g, may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments. A record of such action together with the substantiating data shall be provided to the division for a permanent record.

The building official may also directly adopt roof snow loads in accordance with Table 1608.1.1(b), provided the site is no more than 100 ft. higher than the listed elevation.

Where the minimum roof live load in accordance with section 1607.11 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf.

(39) Table 1608.1.1(a) and Table 1608.1.1(b) are added as follows:

TABLE NO. 1608.1.1(a)
STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

COUNTY	P_o	S	A_o
Beaver	43	63	6.2
Box Elder	43	63	5.2
Cache	50	63	4.5
Carbon	43	63	5.2
Daggett	43	63	6.5
Davis	43	63	4.5
Duchesne	43	63	6.5
Emery	43	63	6.0
Garfield	43	63	6.0
Grand	36	63	6.5
Iron	43	63	5.8
Juab	43	63	5.2
Kane	36	63	5.7
Millard	43	63	5.3
Morgan	57	63	4.5
Piute	43	63	6.2
Rich	57	63	4.1
Salt Lake	43	63	4.5
San Juan	43	63	6.5
Sanpete	43	63	5.2
Sevier	43	63	6.0
Summit	86	63	5.0
Tooele	43	63	4.5
Uintah	43	63	7.0
Utah	43	63	4.5
Wasatch	86	63	5.0
Washington	29	63	6.0
Wayne	36	63	6.5
Weber	43	63	4.5

TABLE NO. 1608.1.1(b)
RECOMMENDED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS(2)

		Roof Snow Load (PSF)	Ground Snow Load (PSF)
Beaver County			
Beaver	5920 ft.	43	62
Box Elder County			
Brigham City	4300 ft.	30	43
Tremonton	4290 ft.	30	43
Cache County			
Logan	4530 ft.	35	50
Smithfield	4595 ft.	35	50

Carbon County			
Price	5550 ft.	30	43
Daggett County			
Manila	5377 ft.	30	43
Davis County			
Bountiful	4300 ft.	30	43
Farmington	4270 ft.	30	43
Layton	4400 ft.	30	43
Fruit Heights	4500 ft.	40	57
Duchesne County			
Duchesne	5510 ft.	30	43
Roosevelt	5104 ft.	30	43
Emery County			
Castledale	5660 ft.	30	43
Green River	4070 ft.	25	36
Garfield County			
Panguitch	6600 ft.	30	43
Grand County			
Moab	3965 ft.	25	36
Iron County			
Cedar City	5831 ft.	30	43
Juab County			
Nephi	5130 ft.	30	43
Kane County			
Kanab	5000 ft.	25	36
Millard County			
Millard	5000 ft.	30	43
Delta	4623 ft.	30	43
Morgan County			
Morgan	5064 ft.	40	57
Piute County			
Piute	5996 ft.	30	43
Rich County			
Woodruff	6315 ft.	40	57
Salt Lake County			
Murray	4325 ft.	30	43
Salt Lake City	4300 ft.	30	43
Sandy	4500 ft.	30	43
West Jordan	4375 ft.	30	43
West Valley	4250 ft.	30	43
San Juan County			
Blanding	6200 ft.	30	43
Monticello	6820 ft.	35	50
Sanpete County			
Fairview	6750 ft.	35	50
Mt. Pleasant	5900 ft.	30	43
Manti	5740 ft.	30	43

Ephraim	5540 ft.	30	43
Gunnison	5145 ft.	30	43
Sevier County			
Salina	5130 ft.	30	43
Richfield	5270 ft.	30	43
Summit County			
Coalville	5600 ft.	60	86
Kamas	6500 ft.	70	100
Park City	6800 ft.	100	142
Park City	8400 ft.	162	231
Summit Park	7200 ft.	90	128
Tooele County			
Tooele	5100 ft.	30	43
Uintah County			
Vernal	5280 ft.	30	43
Utah County			
American Fork	4500 ft.	30	43
Orem	4650 ft.	30	43
Pleasant Grove	5000 ft.	30	43
Provo	5000 ft.	30	43
Spanish Fork	4720 ft.	30	43
Wasatch County			
Heber	5630 ft.	60	86
Washington County			
Central	5209 ft.	25	36
Dameron	4550 ft.	25	36
Leeds	3460 ft.	20	29
Rockville	3700 ft.	25	36
Santa Clara	2850 ft.	15 (1)	21
St. George	2750 ft.	15 (1)	21
Wayne County			
Loa	7080 ft.	30	43
Hanksville	4308 ft.	25	36
Weber County			
North Ogden	4500 ft.	40	57
Ogden	4350 ft.	30	43

NOTES

(1) The IBC requires a minimum live load - See 1607.11.2.

(2) This table is informational only in that actual site elevations may vary. Table is only valid if site elevation is within 100 feet of the listed elevation.

(40) Section 1608.2 is deleted and replaced with the following:

1608.2 Ground Snow Loads. The ground snow loads to be used in determining the design snow loads for roofs in states other than Utah are given in Figure 1608.2 for the contiguous

United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated CS in figure 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2 and for all sites within the CS areas shall be approved. Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official.

(41) Section 1608.3.2 is deleted and replaced with the following:

1608.3.2 Thermal Factor. The value for the thermal factor, C_t, used in calculation of p_f shall be determined from Table 1608.3.2.

Exception: Except for unheated structures, the value of C_t need not exceed 1.0 when ground snow load, P_g, is calculated using Section 1608.1.1 as amended.

(42) Section 1614.2 is deleted and replaced with the following:

1614.2 Change in Occupancy. When a change of occupancy results in a structure being reclassified to a higher Seismic Use Group, or when such change of occupancy results in a design occupant load increase of 100% or more, the structure shall conform to the seismic requirements for a new structure.

Exceptions:

1. This is not required if the design occupant load increase is less than 25 persons and the Seismic Use Group does not change.

2. Specific detailing provisions required for a new structure are not required to be met where it can be shown an equivalent level of performance and seismic safety contemplated for a new structure is obtained. Such analysis shall consider the regularity, overstrength, redundancy and ductility of the structure within the context of the specific detailing provided. Alternatively, the building official may allow the structure to be upgraded in accordance with the latest edition of the "Guidelines for Seismic Rehabilitation of Existing Buildings" or another nationally recognized standard for retrofit of existing buildings.

(43) In Section 1616.4.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Roof snow loads of 30 psf or less need not be included. Where the roof snow load exceeds 30 psf, the snow load shall be included, but may be adjusted in accordance with the following formula: $W_s = (0.20 + 0.025(A-5))P_f$

WHERE:

W_s = Weight of snow to be included in seismic calculation;

A = Elevation above sea level at the location of the structure (ft/1000)

P_f = Design roof snow load, psf

For the purposes of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding.

(44) Section 1617.4 is deleted and replaced with the following:

1617.4 Equivalent lateral force procedure for seismic design of buildings. The provisions given in Section 9.5.5 of ASCE 7 shall be used. Roof snow loads to be included in the seismic dead load (W) may be adjusted as outlined in Section 1616.4.1, Item 4, as amended.

(45) In Section 1617.5.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Roof snow loads to be included shall be as outlined in section 1616.4.1, Definition of W, Item 4, as amended.

(46) Section 1618.1 is deleted and replaced with the following:

1618.1 Dynamic analysis procedures. The following dynamic analysis procedures are permitted to be used in lieu of the equivalent lateral force procedure of Section 1617.4:

1. Modal Response Spectral Analysis.
2. Linear Time-history Analysis.
3. Nonlinear Time-history Analysis.

The dynamic analysis procedures listed above shall be performed in accordance with the requirements of Section 9.5.6, 9.5.7, and 9.5.8 respectively, of ASCE 7. Roof snow loads to be included in the seismic dead load (W) may be adjusted as outlined in Section 1616.4.1, Item 4, as amended.

(47) Section 1621.1 is deleted and replaced with the following:

1621.1 Component design. Architectural, mechanical, electrical and nonstructural systems, components and elements permanently attached to structures, including supporting structures and attachments (hereinafter referred to as "components"), and nonbuilding structures that are supported by other structures, shall meet with requirements of Section 9.6 of ASCE 7 except as modified in Sections 1621.1.1, 1621.1.2, 1621.1.3, and 1621.1.4, excluding Section 9.6.3.11.2, of ASCE 7, as amended in this section.

(48) A new Section 1621.1.4 is added as follows:

1621.1.4 ASCE 7, Section 9.6.2.6.2.2 paragraph (e) is modified to read as follows:

(e) Penetrations shall have a sleeve or adapter through the ceiling tile to allow for free movement of at least 1 inch (25 mm) in all horizontal directions.

Exceptions:

1. Where rigid braces are used to limit lateral deflections.

2. At fire sprinkler heads in frangible surfaces per NFPA 13.

([~~47~~]49) Section 1805.2.1 is deleted and replaced with the following:

1805.2.1 Frost protection. Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

(1) Extending below the frost line of the locality;

(2) Constructed in accordance with ASCE-32; or

(3) Erected on solid rock.

Exception: Freestanding buildings meeting all of the following conditions shall not be required to be protected:

1. Classified in Importance Category I(see Table 1604.5), or Occupancy Group U (see Section 312);

2. Area of 1,000 square feet (93m^2) or less;

3. Eave height of 10 feet (3048 mm) or less; and

4. Constructed of light-wood-framed construction.

Footings shall not bear on frozen soil unless such frozen condition is of a permanent character.

([~~48~~]50) Section 1805.5 is deleted and replaced with the following:

1805.5 Foundation walls. Concrete and masonry foundation walls shall be designed in accordance with Chapter 19 or 21. Foundation walls that are laterally supported at the top and bottom and within the parameters of Tables 1805.5(1) through 1805.5(4) are permitted to be designed and constructed in accordance with Sections 1805.5.1 through 1805.5.5. Concrete foundation walls may also be constructed in accordance with Section 1805.5.8.

([~~49~~]51) A new section 1805.5.8 is added as follows:

1805.5.8 Empirical foundation design. Group R, Division 3 Occupancies three stories or less in height, and Group U Occupancies, which are constructed in accordance with Section 2308, or with other methods employing repetitive wood-frame construction or repetitive cold-formed steel structural member construction, shall be permitted to have concrete foundations constructed in accordance with Table 1805.5(5).

([~~50~~]52) Table 1805.5(5) is added as follows:

Table 1805.5(5), entitled "Empirical Foundation Walls, dated September 1, 2002, published by the Department of

Commerce, Division of Occupational and Professional Licensing is hereby adopted and incorporated by reference. Table 1805.5(5) identifies foundation requirements for empirical walls.

([~~51~~]53) A new section 2306.1.4 is added as follows:

2306.1.4 Load duration factors. The allowable stress increase of 1.15 for snow load, shown in Table 2.3.2, Frequently Used Load Duration Factors, C_d, of the National Design Specifications, shall not be utilized at elevations above 5,000 feet (1524 M).

([~~52~~]54) Section 2308.6 is deleted and replaced with the following:

2308.6 Foundation plates or sills. Foundations and footings shall be as specified in Chapter 18. Foundation plates or sills resting on concrete or masonry foundations shall comply with Section 2304.3.1 and shall be bolted or anchored by one of the following:

1. Foundation plates or sill shall be bolted or anchored to the foundation with not less than 1/2 inch (12.7 mm) diameter steel bolts or approved anchors. Bolts shall be embedded at least 7 inches (178 mm) into concrete or masonry, and spaced not more than 6 feet (1829 mm) apart. There shall be a minimum of two bolts or anchor straps per piece with one bolt or anchor strap located not more than 12 inches (305 mm) or less than 4 inches (102 mm) from each end of each piece.

2. Foundation plates or sills shall be bolted or anchored to the foundation with not less than 1/2 inch (12.7 mm) diameter steel bolts or approved anchors. Bolts shall be embedded at least 7 inches (178 mm) into concrete or masonry, and spaced not more than 32 inches (816 mm) apart. There shall be a minimum of two bolts or anchor straps per piece located not less than 4 inches (102 mm) from each end of each piece.

A properly sized nut and washer shall be tightened on each bolt to the plate.

([~~53~~]55) In Section 2902.1, the title for Table 2902.1 is deleted and replaced with the following and footnote f is added as follows: Table 2902.1, Minimum Number of Plumbing Facilities[a, f].

FOOTNOTE: f. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms.

([~~54~~]56) A new section 2902.1.1 is added as follows:

2902.1.1 Unisex toilets and bath fixtures. Fixtures located within unisex toilet and bathing rooms complying with section 2902 are permitted to be included in determining the minimum number of fixtures for assembly and mercantile occupancies.

([~~55~~]57) Section 3006.5 Shunt Trip, the following exception is added:

Exception: Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less.

([~~56~~]58) A new section 3403.5 is added as follows:

3403.5 Parapets and other appendages. Building constructed prior to 1975 with parapet walls, cornices, spires, towers, tanks, signs, statuary and other appendages shall have such appendages evaluated by a licensed engineer to determine resistance to design loads specified in this code when said building is undergoing reroofing, or alteration of or repair to said feature.

EXCEPTION: Group R-3 an U occupancies.

Original Plans and/or structural calculations may be utilized to demonstrate that the parapet or appendages are structurally adequate. When found to be deficient because of design or deteriorated condition, the engineer shall prepare specific recommendations to anchor, brace, reinforce or remove the deficient feature.

The maximum height of an unreinforced masonry parapet above the level of the diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times the thickness of the parapet wall. The parapet height may be a maximum of two and one-half times its thickness in other than Seismic Design Categories D, E, or F. If the required parapet height exceeds this maximum height, a bracing system designed using the coefficients specified in ASCE 7-02 Table 9.6.2.2 shall support the top of the parapet. When positive diaphragm connections are absent, tension roof anchors shall be added. Approved alternative methods of equivalent strength will be considered when accompanied by engineer sealed drawings, details and calculations.

([~~57~~]59) The exception in 3409.1 is deleted and replaced with the following:

Exception: Type B dwelling or sleeping units required by section 1107 are not required to be provided in existing buildings and facilities, except when an existing occupancy is changed to R-2.

([~~58~~]60) In Section 3409.3, number 7 is added as follows:

7. When a change of occupancy in a building or portion of a building results in multiple dwelling or sleeping units as determined in section 1107.6.2, not less than 20 percent of the dwelling or sleeping units shall be Type B dwelling or sleeping units. These dwelling or sleeping units may be located on any floor of the building provided with an accessible route. Two percent, but not less than one, of the dwelling or sleeping units shall be Type A dwelling units.

([~~59~~]61) The following referenced standard is added under NFPA in chapter 35:

TABLE

Number	Title	Referenced in code Section number
720-99	Recommended Practice for the Installation of Household Carbon Monoxide (CO) Warning Equipment	907.2.10.1, 907.2.10.5

([~~60~~]62) In Chapter 35, Referenced Standards, the following NFPA referenced standards are deleted and replaced with the current versions as follows:

TABLE

DELETED	REPLACED BY	
13 - 99	13 - 02	Installation of Sprinkler Systems
13D - 99	13D - 02	Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes
13R - 99	13R - 02	Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height
72 - 99	72 - 02	National Fire Alarm Code
101 - 00	101 - 03	Life Safety Code

KEY: contractors, building codes, building inspection, licensing
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